IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

BETTER MOUSE COMPANY, LLC,	
Plaintiff,	Civil Action No. 2:14-cv-00198
	(Lead consolidated matter)
v.	
STEELSERIES APS, ET AL.	PATENT CASE
Defendants.	
	JURY TRIAL DEMANDED

**STEELSERIES' MOTION FOR SUMMARY JUDGMENT OF INVALIDITY
OF CLAIMS 6-8 OF U.S. PATENT NO. 7,532,200**

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I.   INTRODUCTION

Defendants SteelSeries ApS and SteelSeries North America Corp. (collectively

"SteelSeries") respectfully move for summary judgment that independent claim 6 and dependent

claims 7 and 8 (collectively "the Asserted Claims") of U.S. Patent No. 7,532,200 ("'200 Patent"

or "Patent-in-Suit") are anticipated by Japanese Utility Model Application No. JP3090806 (U) to

Gui-Lin Zhong, entitled "Mouse with Adjustable Cursor Movement Resolution" (hereafter

"Zhong").[1] Zhong constitutes prior art to the '200 Patent under 35 U.S.C. §§ 102 (a) and (b),

and seeks to solve the same alleged problem as the '200 Patent in exactly the same manner.

Moreover, Zhong meets each and every limitation of the claims asserted against SteelSeries in

the present litigation. As set forth below, there can be no genuine dispute as to any issue of

material fact, and summary judgment of anticipation is therefore appropriate.

II.   ISSUE TO BE DECIDED BY THE COURT

Whether Zhong renders the Asserted Claims of the '200 Patent invalid under 35 U.S.C.

§§ 102 (a) and/or (b).

III.   STATEMENT OF UNDISPUTED MATERIAL FACTS

1.   The '200 Patent was filed on January 18, 2005.

2.   The '200 Patent claims priority to a Taiwanese patent application, TW 93112646

A, dated May 5, 2004.

3.   The '200 Patent discloses "an apparatus for setting multi-stage displacement

resolution of a mouse." '200 Patent, 1:8-9.

4.   The '200 Patent describes a "switching circuit to set the resolution value of the

mouse micro controller so that the user can directly set the resolution value via the switching

circuit without using [a] software driver or tool." *Id.*, 3:46-49.

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[1] A copy of Zhong is attached to the accompanying Declaration of Esha Bandyopadhyay.

5.   The '200 Patent states that "[a]n object of the present invention is to provide an apparatus for setting multi-stage displacement resolution of a mouse so as to set the mouse resolution directly through a switch of the mouse." *Id.*, 1:38-41.

6.   The '200 Patent further states that "[a]nother object of the present invention is to provide an apparatus for setting multi-stage displacement resolution of a mouse so as to adjust the mouse resolution without using [a] software driver or tool." *Id.*, 1:42-45.

7.   The only claims of the '200 Patent that Plaintiff Better Mouse Company, LLC ("Plaintiff") accuses SteelSeries of infringing are claims 6-8.

8.   Claim 6 claims:

6.   An apparatus for setting multi-stage displacement resolution of a mouse, comprising:

a X-Y axis plane displacement detector, for sensing a distance and a moving direction generated by the mouse in a two-dimensional space [hereafter "**Movement Sensor Limitation**"]

an N-stage switch for setting a resolution value, the N-stage switch circuit having a switching button capable of being manually switched to one of positions 1-N, and accordingly activating a connected resolution setting pin to indicate a state, where N is a positive integer [hereafter "**N-Stage Switch Limitation**"]; and

a mouse micro controller with a register, coupled to the X-Y axis plane displacement detector and the switching circuit, the mouse micro controller determining the resolution value based on the state of the connected resolution setting pins, setting a mouse resolution based on the resolution value and storing the resolution value in the register, the mouse micro controller responding to the distance and moving direction sensed by the X-Y axis plane displacement detector to provide a control signal to a computer connected to the mouse, thereby moving the mouse cursor on a screen of the computer, the mouse cursor being moved directly based on the resolution value stored in the register [hereafter "**Microcontroller Limitation**"].

Id., 4:28-52.

9.   Claim 7 claims:

7.   The apparatus as claimed in claim **6**, further comprising a button set for clicking an icon selected by the mouse cursor.

Id., 4:53-54.

10.   Claim 8 claims:

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8.   The apparatus as claimed in claim **7**, wherein the button set has a left button and a right button.

Id., 4:55-56.

11.   The following chart sets forth the Court's constructions, as well as the parties'

agreed-upon constructions, of terms and phrases from the Asserted Claims.

CLAIM TERM	COURT'S OR AGREED CONSTRUCTION
activating a connected resolution setting pin to indicate a state	activating a connected resolution setting pin to indicate a mode or condition
determining the resolution value based on the state of the connected resolution setting pins	ascertaining or establishing the resolution value based on the mode or condition of the connected resolution setting pin
indicate a state	indicate a mode or condition
manually adjusted to generate the resolution value directly	adjusted by hand to generate a resolution value without using a software driver or tool that is external to the mouse
mouse cursor being moved directly based on the resolution value stored in the register	mouse cursor being moved based on the resolution value stored in the register, and without using a software driver or tool that is external to the mouse to adjust the resolution value
mouse resolution	number of dots that the mouse cursor moves for every inch that the mouse moves
N-stage switch N-stage switch circuit Positions 1 to N N is a positive integer	*In the claim terms using N, N is a whole number greater than one.*
register	storage device or storage location having a specified storage capacity
resolution setting pin	conductive connection between the mouse microcontroller and the switching circuit, used by the microcontroller in determining resolution value
resolution value	number of dots or counts per unit of distance
switching button capable of being manually switched to one of positions 1 to N	button or switch that can be switched by hand to two or more positions

12.   Zhong was published on October 9, 2002.

IV. LEGAL STANDARD

A. Summary Judgment

Summary judgment should be granted "if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." FED. R. CIV. P. 56(a); *Celotex v. Catrett*, 477 U.S. 317, 322 (1986). "By its very terms, this standard provides that the mere existence of some alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment; the requirement is that there be no genuine issue of material fact." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247-48 (1986). The substantive law identifies the material facts, and disputes over facts that are irrelevant or unnecessary will not defeat a motion for summary judgment. *Id.* at 248. A dispute about a material fact is "genuine" only when the evidence is "such that a reasonable jury could return a verdict for the nonmoving party." *Id.*

The moving party must identify the basis for granting summary judgment and the evidence demonstrating the absence of a genuine issue of material fact. *Celotex*, 477 U.S. at 323. If the movant bears the burden of proof on an issue at trial, then the movant "must establish beyond peradventure all of the essential elements of the claim or defense to warrant [summary] judgment in his favor." *Fontenot v. Upjohn Co.*, 780 F.2d 1190, 1194 (5th Cir. 1986).

B. Anticipation Under 35 U.S.C. § 102

A claim is invalid as anticipated under § 102(a) if the claimed invention was "known or used by others in this country, or patented or described in a printed publication in this or another country, before the invention thereof by the applicant for patent." 35 U.S.C. § 102 (a). A claim is invalid as anticipated under § 102(b) if the claimed invention was "patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States." 35 U.S.C. § 102 (b). A defense of patent invalidity must be proven by clear and convincing evidence. *Microsoft Corp. v. i4i Limited Partnership,* 131 S.Ct. 2238 (2011) ("§ 282 requires an invalidity defense to be proved by clear and convincing evidence").

V.   ZHONG ANTICIPATES CLAIMS 6-8 UNDER SECTIONS 102 (A) AND (B)

A.   Zhong Constitutes Prior Art Under 35 U.S.C. §§ 102 (a) and (b)

As stated above, Zhong was published on October 9, 2002. As this date was well before

the May 5, 2004, priority date of the '200 Patent, and over one year prior to the January 18,

2005, filing date of the '200 Patent, Zhong constitutes prior art to the '200 Patent under both 35

U.S.C. §§ 102 (a) and (b).

B.   Zhong Meets Each and Every Element of Independent Claim 6

Zhong teaches:

> a mouse with adjustable cursor movement resolution, wherein an image sensor detects change in movement location and converts it to resolution, acquires x axis and y axis coordinates and sends them to a microcontroller, which sends a signal to a computer, … wherein the microcontroller is provided with a speed switch key or pushbutton and has two or more different resolution control programs built in, and one of the resolution programs of the microcontroller is selected through speed switch key or pushbutton control, allowing switching of the reading resolution of the image sensor between high resolution and low resolution and making it possible to change the movement speed of the mouse cursor on the monitor and obtain good movement precision.

Zhong, *Abstract*.

In other words, like the '200 Patent, Zhong generally teaches a mouse comprising a

"switching circuit to set the resolution value of the mouse micro controller so that the user can

directly set the resolution value via the switching circuit without using [a] software driver or

tool." *See* '200 Patent, 1:46-49. In the case of Zhong, the "switching circuit" is the disclosed

"speed switch key or pushbutton" for switching "between high resolution and low resolution."

In fact, Zhong states that "[t]he main object of the present invention consists in providing

a type of mouse with adjustable cursor movement resolution, wherein the mouse is provided with

a speed switch key, the resolution of the mouse is changed ***directly*** through [a] switching

operation of the speed switch key, thereby changing the movement speed of the mouse cursor on

the monitor, the mouse being provided with good movement accuracy and being convenient in

terms of manipulation and use." Zhong, ¶ 4 (emphasis added). Similarly, as set forth above, the

'200 Patent states that "[a]n object of the present invention is to provide an apparatus for setting

multi-stage displacement resolution of a mouse so as to set the mouse resolution ***directly*** through

a switch of the mouse." '200 Patent, 1:38-41 (emphasis added).

Notably, the term "directly" appears in both Zhong and the '200 Patent. In fact, the term

"directly" is used in both patents for the same purpose: to distinguish the invention from prior art

requiring the installation of a software driver on an external computer for adjusting mouse

resolution. To this end, Zhong summarizes the relevant prior art by stating that:

> in the case of mice used with computers, after connection thereof and installation of a
> driver program, the mouse cursor movement speed is set in accordance with a settings
> value of the driver program. If there is a need to adjust the mouse cursor movement
> speed due to usage requirements, the adjustment is usually performed through mouse
> clicks under a Windows operating system.

Zhong, ¶ 2.

> Likewise, the '200 Patent describes the prior art by stating:

> Following the popularity of windows operation system, mice have become the standard-
> equipment for personal computers. Before a user uses a mouse, he/she has to install a
> software driver or tool provided by the manufacturer for operating the mouse or setting
> the operating mode and resolution of the mouse. For example, when the user wants to
> adjust the mouse resolution he/she has to execute the software driver/tool….

'200 Patent, 1:14-21.

Figure 2 of Zhong, an annotated version of which is reproduced below, provides an

overview of the Zhong mouse and illustrates an image sensor 2 and a speed switch key 5, both of

which are connected to the microcontroller 1. As discussed below, these elements correspond to

the Movement Sensor, N-Stage Switch, and Microcontroller Limitations of the '200 Patent.

(FIG. 2)

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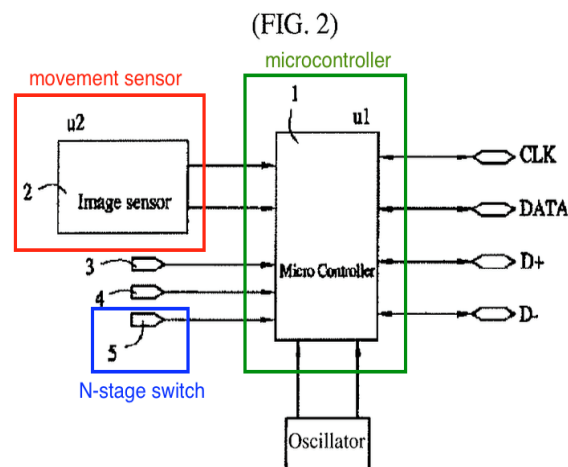
     1.   Zhong Meets the *Movement Sensor Limitation* of Claim 6

Zhong teaches an "image sensor 2" which, like the X-Y axis plane displacement detector

claimed in the '200 Patent, "reads the reference point count (resolution) of unit movement

amounts, converts this to obtain x axis and y axis coordinate values, and then transmits these to

the microcontroller 1, which sends these signals to and makes them available for use by a

computer." Zhong, ¶ 7. In other words, the purpose of the "image sensor 2" of the Zhong mouse

is to sense a distance and a moving direction generated by the mouse. Accordingly, there can be

no genuine dispute that Zhong meets the Movement Sensor Limitation of claim 6.

   2.   Zhong Meets the *N-Stage Switch Limitation* of Claim 6

In essence, the N-Stage Switch Limitation of claim 6 teaches a switching button that can

be switched by hand to two or more positions, each such position determining the state of one or

more connected resolution setting pins. As stated above, the parties have agreed that the term

"resolution setting pin" means "a conductive connection between the mouse microcontroller and

the switching circuit, used by the microcontroller in determining resolution value." *Supra* at

Section III, ¶ 11.

Zhong describes that a "speed switch key or pushbutton 5 is connected to the

microcontroller 1, which has ***two or more*** different built-in resolution control programs, which

are selected and put to use by means of the speed switch key or pushbutton 5." Zhong, ¶ 8

(emphasis added); *see also id.*, ¶ 5 ("[W]hen using the above structure, one resolution program of

the microcontroller is selected through control of said speed switch key or pushbutton…"); *id.*,

Abstract ("allowing switching of the reading resolution of the image sensor between high

resolution and low resolution and making it possible to change the movement speed of the mouse

cursor on the monitor"). As discussed above, according to Zhong, mouse resolution is changed

without using an external software driver or tool because "the resolution of the mouse is changed

directly through [the] switching operation of the speed switch key." *Id.*, ¶ 4 (emphasis added).

Further, Figure 1 of Zhong, shown below with annotations, illustrates the conductive

connection between the speed switch key 5 and the mouse microcontroller corresponding to the

resolution setting pins of the mouse microcontroller 1 for purposes of directly changing

resolution, based on the condition of those pins.

(FIG. 1)
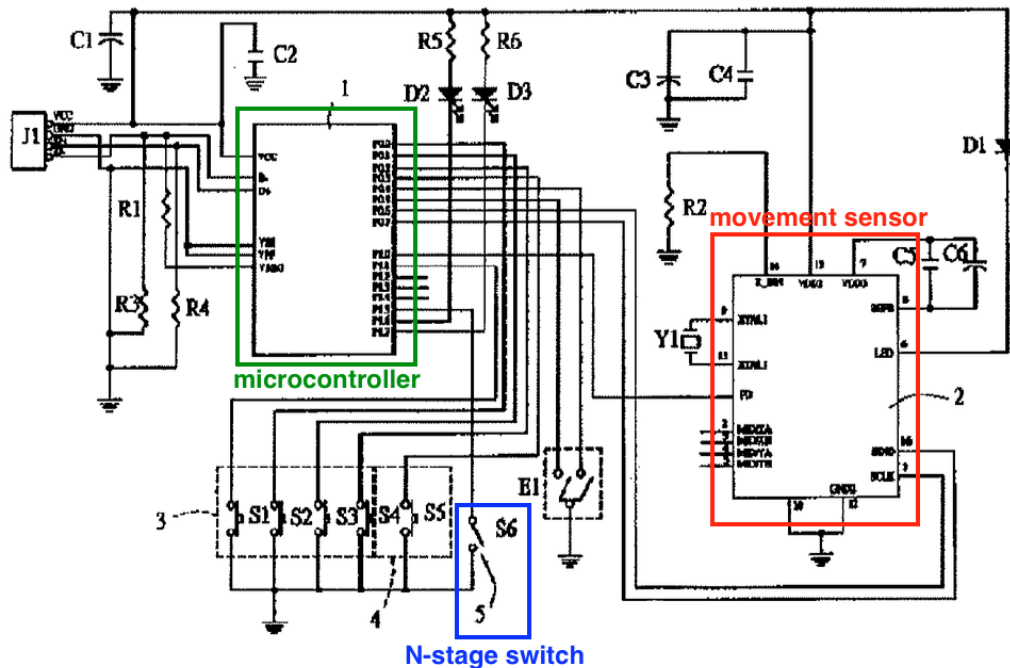
In other words, Zhong teaches a mouse with an N-stage switch where N is at least two,

the switch allowing a user of the mouse to switch resolutions based on the state of the resolution

setting pins conductively connecting the N-stage switch to the Microcontroller, without the need

for external software. There cannot therefore be a genuine dispute as to whether Zhong discloses

a mouse satisfying the N-Stage Switch Limitation, where N is a positive integer greater than one.

3.   Zhong Meets the *Microcontroller Limitation* of Claim 6.

In light of the constructions listed above (*supra* at Section III, ¶ 11), the Microcontroller

Limitation essentially discloses a microcontroller connected to the Movement Sensor and

Switching Circuit; the microcontroller containing a register; the microcontroller ascertaining a

resolution value based on the mode or condition of the connected resolution setting pins, and

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thereafter setting the resolution value and storing it in the register; and the microcontroller responding to the Movement Sensor by ultimately moving the mouse cursor on the screen of a connected computer in accordance with the stored resolution value.

Zhong describes a mouse microcontroller containing "two or more resolution control programs … which are selected for use by the speed switch key or pushbutton." Zhong, ¶ 6. As discussed above, Figures 1 and 2 of Zhong (reproduced above) show that the disclosed microcontroller is connected to the image sensor and the speed switch key or pushbutton. *Id.*, Figs. 1-2; *see also id.*, ¶ 8 ("A speed switch key or pushbutton 5 is connected to the microcontroller 1, which has two or more different built-in resolution control programs, which are selected and put to use by means of the speed switch key or pushbutton 5").

Zhong discloses the operation of the mouse as follows:

When using the above structure, if there is need to change the image acquisition resolution or the mouse 10 or the movement speed of the cursor on the monitor, through direct control of the speed switch key or pushbutton 5, one of the resolution control programs (for example, a 400 dpi or 800 dpi mouse resolution program) in the microcontroller 1 is entered into, the image signal is read by the image sensor 2 at the speed given by the selected mouse resolution program, and is transmitted from the microcontroller to the computer and made available for use.

Id., ¶ 9.

Zhong goes on to say:

Furthermore, assuming the resolution control program in the microcontroller 1 is divided into two types, one being low resolution (400 dpi) and the other high resolution (800 dpi), if the cursor movement amount on the monitor reflecting a unit movement distance of the mouse 10 is 10 cm when low resolution is selected and used, it becomes possible to change the cursor movement amount … to 20 cm by switching to the high resolution program of the mouse 10, without changing the resolution of the monitor itself.

Id., ¶ 10.

In other words, the mouse microcontroller of Zhong *determines* the resolution value, *e.g.*, "400 dpi or 800 dpi" (*id.*, ¶¶ 9-10), by ascertaining the state of the resolution setting pins conductively connecting the mouse microcontroller and the resolution setting switch 5 (*id.*, Figs. 1-2). Discussing Figure 2, Zhong states that "after the switching control of the speed switch key or pushbutton 5, the appropriate resolution program selection is entered into [] the

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microcontroller 1, and the image sensor 2 is made to read movement amount signals using that selected resolution program." *Id.*, ¶ 10.

Further, the mouse microcontroller of Zhong *sets* the resolution by choosing among the "two or more different built-in resolution control programs." *Id.*, ¶ 9. Because the "resolution program selection is entered into the microcontroller" (*id.*, ¶ 10) and the mouse microcontroller of Zhong performs the function of calculating the computer display displacement from the physical displacement reported by the image sensor, the selected resolution value is inherently stored in a register. In essence, a "resolution value" (*e.g.*, "a 400 dpi or 800 dpi mouse resolution program") is stored in a register of the microcontroller, and the microcontroller responds to the image sensor based on the stored "resolution value."

To the extent the term "resolution program" in Zhong is semantically different from the term "resolution value" in the '200 Patent, Zhong's reference to "400 dpi or 800 dpi mouse resolution" (*id.*, ¶ 9) clarifies that Zhong is discussing actual resolution values, and the ability to switch between these values. *See also id.*, ¶ 10 ("assuming the resolution control program in the microcontroller 1 is divided into two types, one being low resolution (400 dpi) and the other high resolution (800 dpi)"); *id.*, *Abstract* ("allowing switching of the reading resolution of the image sensor between high resolution and low resolution and making it possible to change the movement speed of the mouse cursor on the monitor"). In fact, this Court has construed the term "mouse resolution" to mean "number of dots that the mouse cursor moves for every inch that the mouse moves;" under this construction, values such as 400 dpi or 800 dpi are necessarily "resolution values" because "dpi" means "dots per inch." *Supra* at Section III, ¶ 11.

In sum, when the speed switch key is adjusted, the microcontroller ascertains the resolution value based on signals from the speed switch key through the resolution setting pins, stores the resolution value in a register, and sets the mouse resolution accordingly. Zhong further states that "one program [from the two or more resolution control programs] within the microcontroller is selected *directly* through control of the speed switch key or pushbutton, which allows the image sensor to read the image signal at a speed based on a different resolution and

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the signal passes through the microcontroller and is *transferred to the computer*." Zhong, ¶ 6 (emphasis added). The mouse microcontroller of Zhong therefore ultimately controls the movement and resolution of the mouse cursor on the screen of the connected computer without the use of a software driver or tool, in a manner identical to the '200 Patent. *See* '200 Patent, 4:46-52 (stating that the Microcontroller responds to the Movement Sensor and "provide[s] a control signal to a computer connected to the mouse, thereby moving the mouse cursor on a screen of the computer, the mouse cursor being moved directly based on the resolution value stored in the register").

Zhong accordingly teaches a microcontroller containing a register that is connected to the Movement Sensor and Switching Circuit; that ascertains a resolution value based on the mode or condition of the connected resolution setting pins; that thereafter stores the resolution value in the register and sets the mouse resolution; and that responds to the Movement Sensor by ultimately moving the mouse cursor on the screen of a connected computer correspondingly. Accordingly, there can be no genuine dispute that Zhong meets the Microcontroller Limitation of claim 6.

C.   Zhong Meets the Limitations of Dependent Claims 7 and 8

As set forth above, claims 7 and 8 of the '200 Patent describe a button set having a left button and a right button, a standard mouse configuration for purposes of moving a cursor on a screen and clicking on symbols and icons on the screen. *See* '200 Patent; 4:53-56.

Zhong discloses "a key switch set comprising left, middle and right keys." Zhong, p. 2, claim 1; ¶¶ 5, 7, and 13. This key switch set refers to a button set for clicking an icon selected by the mouse cursor, as described in claim 7 of the '200 Patent. Moreover, the "left … and right keys" (*id.*) refer to left button and right button in the button set disclosed in claim 8. Accordingly, Zhong meets the limitations of dependent claims 7 and 8 of the '200 Patent.

VI.   CONCLUSION

The language and figures of Zhong speak for themselves. There can be no doubt that Zhong seeks to solve the same problem as the '200 Patent in exactly the same way: both patents describe adjusting mouse resolution through a switch on the mouse and without the use of an external software driver or tool. *Compare* '200 Patent, 1:38-45 *with* Zhong, *Abstract* and ¶ 2. Both patents describe a Movement Sensor, an N-Stage Switch, and a Microcontroller with identical functionality. Both patents describe operating a switch on the mouse to directly set the mouse resolution specified in "dpi", or dots per inch. And both patents describe a mouse with a standard configuration, including a button set consisting of a left button and a right button. The only difference between Zhong and the '200 Patent is that Zhong disclosed his invention on October 9, 2002, while the Taiwanese patent application to which the '200 Patent claims priority was not filed until May 5, 2004, and the '200 Patent itself was not filed until January 18, 2005. Accordingly, SteelSeries respectfully requests that the Court grant summary judgment of invalidity of the Asserted Claims of the '200 Patent under 35 U.S.C. §§ 102 (a) and/or (b).

Dated: October 9, 2015

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who are deemed to have

consented to electronic service are being served with a copy of this document via the Court's

CM/ECF system per Local Rule CV-5(a)(3) on October 9, 2015.

Dated: October 9, 2015

Respectfully submitted,

/s/ *Esha Bandyopadhyay*
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